

### **AMENDMENTS TO THE CLAIMS**

Claims 1-33 are pending for this application. The Applicant respectfully requests reconsideration of the claims in view of the following amendments to claims 3, 4, 6, 7, 9, 10, 13, 14, 16, 17, 19, 20, 23, 24, 26, 27, 29, 30 and 32. Claims 1, 2, 5, 8, 11, 12, 15, 18, 21, 22, 25 and 28 have been cancelled. New claims 34-63 have been added. The Applicant respectfully submits that no new matter has been entered by the amendment of claims 3, 4, 6, 7, 9, 10, 13, 14, 16, 17, 19, 20, 23, 24, 26, 27, 29, 30 and 32 or by the addition of claims 34-63.

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### **Listing of Claims:**

1. (cancelled)
2. (cancelled)
3. (currently amended) The method according to claim ~~[[2]]~~ 34, comprising selecting said starting antenna based on a predetermined criteria.
4. (currently amended) The method according to claim ~~[[2]]~~ 34, comprising selecting said starting antenna based on random selection.
5. (cancelled)
6. (currently amended) The method according to claim ~~[[2]]~~ 34, comprising determining a starting gain for said starting antenna using an automatic gain control.
7. (currently amended) The method according to claim 31, comprising selecting an antenna dwelling order based on a predetermined criteria.

8. (cancelled)

9. (currently amended) The method according to claim 31, wherein said at least one of a plurality of signal quality metrics may comprise at least one of the following: an estimated received power, a received power, a signal-to-noise ratio, a bit error rate, a packet error rate, a propagation channel characteristic, and/or a channel interference.

10. (currently amended) The method according to claim 31, comprising selecting said portion of said dwelled-on at least one of a plurality of antennas based on meeting a specified range of values for at least one of said plurality of signal quality metrics.

11. (cancelled)

12. (cancelled)

13. (currently amended) The ~~machine-readable storage~~ computer readable medium according to claim ~~[[12]]~~ 36, comprising code for selecting said starting antenna based on a predetermined criteria.

14. (currently amended) The ~~machine-readable storage~~ computer readable medium according to claim ~~[[12]]~~ 36, comprising code for selecting said starting antenna based on random selection.

15. (cancelled)

16. (currently amended) The ~~machine-readable storage~~ computer readable medium according to claim ~~[[12]]~~ 36, comprising code for determining a starting gain for said starting antenna using an automatic gain control.

17. (currently amended) The ~~machine-readable storage~~ computer readable medium according to claim [[11]] 32, comprising code for selecting an antenna dwelling order based on a predetermined criteria.

18. (cancelled)

19. (currently amended) The ~~machine-readable storage~~ computer readable medium according to claim [[11]] 32, wherein said at least one of a plurality of signal quality metrics ~~may~~ comprise at least one of the following: an estimated received power, a received power, a signal-to-noise ratio, a bit error rate, a packet error rate, a propagation channel characteristic, and/or a channel interference.

20. (currently amended) The ~~machine-readable storage~~ computer readable medium according to claim [[11]] 32, comprising code for selecting said portion of said dwelled-on at least one of a plurality of antennas based on meeting a specified range of values for at least one of said plurality of signal quality metrics.

21. (cancelled)

22. (cancelled)

23. (currently amended) The system according to claim [[22]] 38, wherein said processor selects said starting antenna based on a predetermined criteria.

24. (currently amended) The system according to claim [[22]] 38, wherein said processor selects said starting antenna based on random selection.

25. (cancelled)

26. (currently amended) The system according to claim [[22]] 38, wherein said processor determines a starting gain for said starting antenna using an automatic gain control.

27. (currently amended) The system according to claim [[21]] 33, wherein said processor selects an antenna dwelling order based on a predetermined criteria.

28. (cancelled)

29. (currently amended) The system according to claim [[21]] 33, wherein said at least one of a plurality of signal quality metrics ~~may~~ comprise at least one of the following: an estimated received power, a received power, a signal-to-noise ratio, a bit error rate, a packet error rate, a propagation channel characteristic, and/or a channel interference.

30. (currently amended) The system according to claim [[21]] 33, wherein said processor selects said portion of said dwelled-on at least one of a plurality of antennas based on meeting a specified range of values for at least one of said plurality of signal quality metrics.

31. (previously presented) A method for controlling an antenna system, the method comprising:

dwelling on at least one of a plurality of antennas;

determining at least one of a plurality of signal quality metrics for said dwelled-on at least one of a plurality of antennas;

determining a gain for said dwelled-on at least one of a plurality of antennas, wherein said gain is based on at least one of the following: said at least one of said plurality of signal quality metrics, at least one of a plurality of power coupling

parameters, and a portion of said determined gain for said dwelled-on at least one of a plurality of antennas; and

selecting for signal processing a portion of said dwelled-on at least one of a plurality of antennas based on said determined gain and said determined at least one of a plurality of signal quality metrics from said dwelled-on at least one of a plurality of antennas.

32. (currently amended) A ~~machine-readable storage~~ computer readable medium having stored thereon, a computer program having at least one code section for controlling an antenna system, the at least one code section being executable by a computer ~~machine~~ for causing the computer ~~machine~~ to perform steps comprising:

dwelling on at least one of a plurality of antennas;

determining at least one of a plurality of signal quality metrics for said dwelled-on at least one of a plurality of antennas;

determining a gain for said dwelled-on at least one of a plurality of antennas, wherein said gain is based on at least one of the following: said at least one of said plurality of signal quality metrics, at least one of a plurality of power coupling parameters, and a portion of said determined gain for said dwelled-on at least one of a plurality of antennas; and

selecting for signal processing a portion of said dwelled-on at least one of a plurality of antennas based on said determined gain and said determined at least one of a plurality of signal quality metrics from said dwelled-on at least one of a plurality of antennas.

33. (previously presented) A system for controlling an antenna system, the system comprising:

a processor that dwells on at least one of a plurality of antennas;

said processor determines at least one of a plurality of signal quality metrics for said dwelled-on at least one of a plurality of antennas;

said processor determines a gain of said dwelled-on at least one of a plurality of antennas, wherein said gain is based on at least one of the following: said at least one of a plurality of signal quality metrics, at least one of a plurality of power coupling parameters, and a portion of said determined gain for said dwelled-on at least one of a plurality of antennas; and

said processor selects for signal processing, a portion of said dwelled-on at least one of a plurality of antennas based on said determined gain and said determined at least one of a plurality of powers from said dwelled-on at least one of a plurality of antennas.

34. (new) The method according to claim 31, comprising selecting a starting antenna from said at least one of a plurality of antennas.

35. (new) The method according to claim 34, comprising selecting said starting antenna based on prior history of said selection of said portion of dwelled-on at least one of a plurality of antennas.

36. (new) The computer readable medium according to claim 32, comprising code for selecting a starting antenna from said at least one of a plurality of antennas.

37. (new) The computer readable medium according to claim 36, comprising code for selecting said starting antenna based on prior history of said selection of said portion of dwelled-on at least one of a plurality of antennas.

38. (new) The system according to claim 33, wherein said processor selects a starting antenna from said at least one of a plurality of antennas.

39. (new) The system according to claim 38, wherein said processor selects said starting antenna based on prior history of said selection of said portion of dwelled-on at least one of a plurality of antennas.

40. (new) A method for controlling an antenna system, the method comprising:

dwelling on at least one of a plurality of antennas;

determining a gain for said dwelled-on at least one of a plurality of antennas;

selecting a starting antenna from said at least one of a plurality of antennas;

selecting said starting antenna based on prior history of selection of a portion of said dwelled-on at least one of a plurality of antennas as observed across one or more previous frames;

determining at least one of a plurality of signal quality metrics for said dwelled-on at least one of a plurality of antennas; and

selecting for signal processing said portion of said dwelled-on at least one of a plurality of antennas based on said determined gain and said determined at least one of a plurality of signal quality metrics from said dwelled-on at least one of a plurality of antennas.

41. (new) The method according to claim 40, comprising selecting said starting antenna based on a predetermined criteria.

42. (new) The method according to claim 40, comprising selecting said starting antenna based on random selection.

43. (new) The method according to claim 40, comprising determining a starting gain for said starting antenna using an automatic gain control.

44. (new) The method according to claim 40, comprising selecting an antenna dwelling order based on a predetermined criteria.

45. (new) The method according to claim 40, comprising determining said at least one of said determined gain for said dwelled-on at least one of a plurality of antennas based on said at least one of a plurality of signal quality metrics, on at least one of a plurality of power coupling parameters, and/or a portion of said determined gain for said dwelled-on at least one of a plurality of antennas.

46. (new) The method according to claim 40, wherein said at least one of a plurality of signal quality metrics comprise at least one of the following: an estimated received power, a received power, a signal-to-noise ratio, a bit error rate, a packet error rate, a propagation channel characteristic, and/or a channel interference.

47. (new) The method according to claim 40, comprising selecting said portion of said dwelled-on at least one of a plurality of antennas based on meeting a specified range of values for at least one of said plurality of signal quality metrics.

48. (new) A computer readable medium having stored thereon, a computer program having at least one code section for controlling an antenna system, the at least one code section being executable by a computer for causing the computer to perform steps comprising:

- dwelling on at least one of a plurality of antennas;
- determining a gain for said dwelled-on at least one of a plurality of antennas;
- selecting a starting antenna from said at least one of a plurality of antennas;
- selecting said starting antenna based on prior history of selection of a portion of said dwelled-on at least one of a plurality of antennas as observed across one or more previous frames;



determining at least one of a plurality of signal quality metrics for said dwelled-on at least one of a plurality of antennas; and

selecting for signal processing said portion of said dwelled-on at least one of a plurality of antennas based on said determined gain and said determined at least one of a plurality of signal quality metrics from said dwelled-on at least one of a plurality of antennas.

49. (new) The computer readable medium according to claim 48, comprising code for selecting said starting antenna based on a predetermined criteria.

50. (new) The computer readable medium according to claim 48, comprising code for selecting said starting antenna based on random selection.

51. (new) The computer readable medium according to claim 48, comprising code for determining a starting gain for said starting antenna using an automatic gain control.

52. (new) The computer readable medium according to claim 48, comprising code for selecting an antenna dwelling order based on a predetermined criteria.

53. (new) The computer readable medium according to claim 48, comprising code for determining said at least one of said determined gain for said dwelled-on at least one of a plurality of antennas based on said at least one of a plurality of signal quality metrics, on at least one of a plurality of power coupling parameters, and/or a portion of said determined gain for said dwelled-on at least one of a plurality of antennas.

54. (new) The computer readable medium according to claim 48, wherein said at least one of a plurality of signal quality metrics comprise at least one of the following:

an estimated received power, a received power, a signal-to-noise ratio, a bit error rate, a packet error rate, a propagation channel characteristic, and/or a channel interference.

55. (new) The computer readable medium according to claim 48, comprising code for selecting said portion of said dwelled-on at least one of a plurality of antennas based on meeting a specified range of values for at least one of said plurality of signal quality metrics.

56. (new) A system for controlling an antenna system, the system comprising:  
a processor that dwells on at least one of a plurality of antennas;  
said processor determines a gain for said dwelled-on at least one of a plurality of antennas;  
said processor selects a starting antenna from said at least one of a plurality of antennas;  
said processor selects said starting antenna based on prior history of selection of a portion of said dwelled-on at least one of a plurality of antennas as observed across one or more previous frames;  
said processor determines at least one of a plurality of signal quality metrics for said dwelled-on at least one of a plurality of antennas; and  
said processor selects for signal processing said portion of said dwelled-on at least one of a plurality of antennas based on said determined gain and said determined at least one of a plurality of signal quality metrics from said dwelled-on at least one of a plurality of antennas.

57. (new) The system according to claim 56, wherein said processor selects said starting antenna based on a predetermined criteria.

58. (new) The system according to claim 56, wherein said processor selects said starting antenna based on random selection.

59. (new) The system according to claim 56, wherein said processor determines a starting gain for said starting antenna using an automatic gain control.

60. (new) The system according to claim 56, wherein said processor selects an antenna dwelling order based on a predetermined criteria.

61. (new) The system according to claim 56, wherein said processor determines said at least one of said determined gain for said dwelled-on at least one of a plurality of antennas based on said at least one of a plurality of signal quality metrics, on at least one of a plurality of power coupling parameters, and/or a portion of said determined gain for said dwelled-on at least one of a plurality of antennas.

62. (new) The system according to claim 56, wherein said at least one of a plurality of signal quality metrics comprise at least one of the following: an estimated received power, a received power, a signal-to-noise ratio, a bit error rate, a packet error rate, a propagation channel characteristic, and/or a channel interference.

63. (new) The system according to claim 56, wherein said processor selects said portion of said dwelled-on at least one of a plurality of antennas based on meeting a specified range of values for at least one of said plurality of signal quality metrics.